

DIRECTOR OF ROADS

Robert P. Hoepfner, P.E.

FINANCE DIRECTOR

Michelle M Mykytiak

PURCHASING DIRECTOR

JoAnna K. Strizic

**Invitation to Bid on: *One (1) Single-Axle Medium-Duty Truck Chassis
With a 40' Aerial Device and Fiberglass Lined Body***

Sealed bids will be publicly opened at **11:00** A.M., E.S.T. on **Wednesday, November 16, 2011** at the office of the Macomb county Department of Roads, 117 S. Groesbeck, Mt. Clemens, Michigan, 48043 for the furnishing of the above materials, services, equipment, work and/or supplies in accordance with the terms, conditions and specifications as stated herein and hereto attached.

1. The Director of Roads reserves the right to accept any and all alternate proposals, bids or quotes and to award the contract to other than the lowest Bidder, waive any irregularities or informalities or both, to reject any and all bids, quotes and proposals, and in general to make the award of the contract in any manner deemed by the Director of Roads, at his sole discretion, to be in the Department of Roads best interest. In case of error in the extension of prices in the bid or other arithmetical error, the unit prices will govern.
2. The bid must be delivered in person or sent by mail to the Macomb County Department of Roads, 117 S. Groesbeck, Mt. Clemens, Michigan, 48043. **It shall be in a sealed envelope marked with the name and address of the bidder on the outside of the envelope. The above referenced bid number should also be highlighted on the outside of the envelope. In addition, if the bid is to be express mailed, "Bid Documents Enclosed" must be conspicuously marked on the package.** Facsimile and/or e-mail transmitted bids will **not** be accepted.
3. The bidder shall assume full responsibility for delivery of bids prior to the appointed hour for opening same and shall assume the risk of late delivery or non-delivery regardless of the manner employed for the transmission thereof. Bids shall be accepted at any time during the normal course of business only, said hours being 8:00 am to 4:30 pm, Monday through Friday, legal holidays excepted. A bidder may withdraw their bid response by written request at any time prior to the scheduled bid opening. Any bid received after the scheduled opening time will **not** be accepted and will be returned unopened. No bid may be withdrawn, changed, or modified in any way for a period of sixty (60) calendar days from the date of the bid opening.
4. IT IS UNDERSTOOD THAT THE MACOMB COUNTY DEPARTMENT OF ROADS IS A GOVERNMENTAL UNIT AND AS SUCH IS EXEMPT FROM THE PAYMENT OF ALL STATE AND FEDERAL TAXES APPLYING ON THE ABOVE MENTIONED ITEM AND ALL PRICES QUOTED SHALL NOT INCLUDE ANY SUCH TAX.
5. The total price quoted by the Bidder must be the total cost delivered to the location(s). All goods are to be shipped F.O.B. Shipments sent C.O.D. without the Department of Roads consent will not be accepted and will, at the Contractor's risk and expense, be returned. Unauthorized shipments are subject to rejection and returned at the Contractor's expense.
6. The bidder by execution of the proposal thereby declares that the bid is made without collusion with any other person, firm or corporation making any other bid, or who otherwise would make a bid, and agrees to furnish all bid items in strict accordance with all Federal Regulatory Measures.

7. All bids must be submitted on the Department of Roads form of bid blank. The bid shall be legibly prepared in ink or typewriter. Erasures or alterations must be initialed by the bidder.
8. Submission of a bid will be construed as a conclusive presumption that the bidder is thoroughly familiar with the Bid Proposal and Specifications and that he understands and agrees to abide by each and all of the stipulations and requirements contained therein.
9. In the specifications, whenever an article or material is defined by brand name, the name and catalog number of a particular manufacturer, vendor or a limited description, the term "OR APPROVED EQUAL" is written. Any reference to a particular manufacturer's product either by brand name or limited description is only for purposes of setting a standard of performance, quality, composition, construction or size.
10. Successful bidder must furnish a State of Michigan Motor Vehicle Certificate of Title, properly executed for any equipment requiring same.
11. The Director of Roads reserves the right to award the bid for the equipment which best fits our needs and appears to be in the best interest of the Department of Roads at the time the bids are evaluated.
12. The Macomb County Department of Roads reserves the right to terminate the contract without penalty upon thirty (30) days written notice, due to poor performance or for reasons deemed to be in its best interest. The Macomb County Department of Roads reserves the right to re-award the contract to the second most qualified vendor, re-propose, re-quote or re-bid the contract or do whatever is deemed to be in its best interest.
13. Bidders aggrieved by an award of any resulting contract may file a written notice of protest with the Purchasing Director within seven (7) calendar days of the award by the Macomb County Department of Roads
14. When applicable, contractor must furnish material safety data sheets for their products.
15. BIDDERS ARE REQUIRED TO SUBMIT COMPLETE AND COMPREHENSIVE DATA AND DESCRIPTIVE LITERATURE COVERING THE ITEM PROPOSED TO BE FURNISHED. VENDORS SUBMITTING ALTERNATE BIDS MUST PROVIDE SPECIFICATIONS DOCUMENTING PRODUCT IS EQUAL TO SPECIFIED BID ITEM. BIDS SUBMITTED WITHOUT THE ABOVE DOCUMENTATION WILL BE CONSIDERED NON-RESPONSIVE AND REJECTED.
16. THIS BID BY MUTUAL AGREEMENT OF BOTH PARTIES may be extended for additional one (1) year periods, each year hereafter, but not to exceed a maximum of two (2) additional years.
17. Prior to furnishing the requested products and services, it shall be the responsibility of the awarded vendor to obtain all licenses and permits required to complete this contractual service, at no cost to the Macomb County Department of Roads. These licenses and permits shall be readily available for review by the Administration and Purchasing Personnel.
18. Vendors will provide a general history, description and status of their company.
19. All applicable Federal and State laws and rules and regulation over the project shall apply to the project contract throughout and will be deemed to be included in the contract herein written out in full.
20. The Macomb County Department of Roads adheres to Title VI related requirements as outlined in USDOT Regulation 49 CFR-Part 26, Appendix A of MDOT Bidding Specifications, and the MCDR Policy #407. The Macomb County Department of Roads is an Equal Opportunity Agency.
21. The Macomb County Department of Roads will not pay fuel surcharges

22. The only **official** document is available over the internet at www.rcmcweb.org or www.mitn.info.
23. All documents and correspondence submitted to the Macomb County Department of Roads becomes the property of the Department of Roads and is subject to disclosure under the "Freedom of Information Act". This Act provides for the complete disclosure of contract and attachments.

JoAnna Strizic
Purchasing Director
(586) 791-3348

Greg Zukowski
Mechanic's Foreman
(586) 791-3117

PROPOSAL

WE, THE UNDERSIGNED, agree to furnish to the Macomb County Department of Roads **One (1) Single-Axle Medium-Duty Truck Chassis With a 40' Aerial Device and Fiberglass Lined Body**, conforming to the attached specifications at the pricing indicated as noted. F.O.B., 34592 Nova, Clinton Township, Michigan.

The undersigned herein submitted this bid or proposal and agrees to enter into an agreement with the Macomb County Department of Roads in accordance with the bid documents. In submitting this complete and signed proposal, it is understood that the right is reserved by the Macomb County Department of Roads to reject any or all bids or proposals and to make such award that is in the best interest of the Macomb County Department of Roads

MAKE _____

MODEL _____ YEAR _____

ORIGIN _____

DELIVERY DATE _____

BODY COMPANY _____

UNIT PRICE \$ _____

VEHICLE ORDER CUT-OFF DATE _____

COMPANY NAME: _____ ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PRINTED NAME: _____ SIGNATURE: _____

TITLE: _____ DATE: _____

PHONE NO.: _____ FAX NO.: _____

E-MAIL ADDRESS: _____ TERMS: _____

INDEMNIFICATION

The Macomb County Department of Roads will not be responsible for injury to contractor’s employees, sub-contractors, or to third parties caused by the contractor’s agents, servants or employees. Therefore, the contractor agrees to incorporate the below hold harmless agreement into the required insurance and to be evidenced by being contained in the certificate of insurance. Further, the below listed indemnification is incorporated and is part of the subject contract.

“The contractor agrees to protect, defend, indemnify and hold the MCDR and its directors, officers, employees and agents free and harmless from and against any and losses, penalties, damages, settlements, costs, charges, professional fees, or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, legal fees, liens, demands, court costs, obligation, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of this agreement and/or the performance hereof. Without limiting the generality of the foregoing, any and all such claims, etc. relating to personal injury, death, damage to property, defects in materials or workmanship, or any actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder”.

“The contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc. at his sole expense and agrees to bear all other costs and expenses related hereto, even if it (claims, etc.) is groundless, false or fraudulent. In any case in which this indemnification would violate legal prohibition, the foregoing provision concerning indemnification shall not be construed to indemnify the MCDR for damage arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the MCDR, its directors, officers, employees or agents”.

WORK REFERENCES

Name of Company	Location	Name of Person Approving Work and Telephone No.	Time Period of Project

INSURANCE

The following insurance shall be obtained:

- | | | |
|----|---|--|
| A. | Comprehensive General Liability including | \$1,000,000 per occurrence and
\$2,000,000 aggregate |
| | 1. Products and completed operations | |
| | 2. Broad form property damage | |
| | 3. Premises operations | |
| | 4. Broad form contractual | |
| | 5. Personal injury | |
| B. | Workers' Compensation Employers Liability Statutory
Coverage and Employer's Liability Limits of: | \$500,000/\$500,000/\$500,000 |
| C. | Automobile liability including hired and leased
vehicles owned and non-owned autos | \$1,000,000 CSL or \$500,000 per person
\$1,000,000 per accident \$500,000
property damage |

Personal Injury Protection – Statutory Limits and Property Protection Insurance - \$1,000,000 Limit.

Supplemental Environmental Auto Liability (SEAL) coverage or insurance that covers the loading and unloading of scheduled pollutants is required.

CERTIFICATES OF INSURANCE (GENERAL)

All certificates of insurance and duplicate policies of an outsider, vendor or contractor shall contain the following clauses:

- A. "Underwriters shall have no right of recovery or subrogation against the MCDR (including its agents and agencies as aforesaid), it being the intention of the parties that the insurance policy so effected shall protect both parties in primary coverage for any and all losses covered by the subject policy."
- B. "Any coverage afforded the MCDR shall apply as primary and not excess to any insurance issued in the name of the MCDR, et al."
- C. "The insurance company(s) issuing the policy or policies shall have no recourse against the MCDR for payment of any premiums or for assessments under any form of policy."
- D. "The term 'insured' is used severally, not collectively but the inclusion in this policy of more than one insured shall not operate to increase the limit of the MCDR's liability."

All certificates are to provide thirty (30) days written notice of material change or cancellation. Certificates of Insurance and insurance binders must be provided not less than ten (10) working days before commencement of work to the Macomb County Department of Roads, 117 S. Groesbeck Hwy., Mt. Clemens, MI 48043. Insurance carriers are subject to the approval of MCDR.

FEDERAL EMPLOYER IDENTIFICATION

COMPANY NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PRINTED NAME: _____ SIGNATURE: _____

TITLE: _____ DATE: _____

PHONE NO.: _____ FAX NO.: _____

E-MAIL ADDRESS: _____ TERMS: _____

FEDERAL EMPLOYER IDENTIFICATION NUMBER: _____

Which is (check one of the following):

() Corporation, incorporated under the laws of the State of: _____

() Partnership, consisting of (list partners): _____

() Assumed Name (register no.) _____

() Individual _____

When payment on such order or contract is to be directed to the same company at an address different from above, fill in the following address:

Statement of No Bid

Macomb County Department of Roads

Bid Number:

Title:

Please Send or Fax To:

Macomb County Department of Roads
Attn: Purchasing Department
34592 Nova Drive
Clinton Twp., MI 48035
Fax Number: (586) 791-5860

We, the undersigned, have declined to bid on the subject bid for the following reasons:

Check All That Apply	Reason
<input type="checkbox"/>	Our company does not handle the type of product/service
<input type="checkbox"/>	We cannot meet the specifications nor provide an approved alternate – please explain below
<input type="checkbox"/>	Our company is not interested in bidding at this time
<input type="checkbox"/>	Job is too small
<input type="checkbox"/>	Job is too large
<input type="checkbox"/>	Cannot be competitive
<input type="checkbox"/>	Liability issues such as insurance, bonding, indemnification, hold harmless
<input type="checkbox"/>	Insufficient time to respond – please explain below
<input type="checkbox"/>	Our company's schedule would not permit performance of the specifications
<input type="checkbox"/>	Other – describe below

Remarks: _____

Company Information:

Company Name: _____

Signature of Authorized Company Representative: _____

Printed Name: _____

Title: _____

Company Address: _____

Fax Number: _____

Telephone Number: _____

Important Note: To qualify as a respondent to the bid, the vendor must submit a proposal or return this completed form.

VENDOR REGISTRATION: The Macomb County Department of Roads uses the MITN website for vendor registration, bid and tabulation posting, award information and other processes. Final bid results will be posted on the MITN website after award. Please register to see results – www.mitn.info.

MACOMB COUNTY DEPARTMENT OF ROADS

Specifications for:

One (1) Single-Axle Medium-Duty Truck Chassis With a 40' Aerial Device, Fiberglass Line Body

General Description

This specification describes one (1) single-axle medium-duty truck cab and chassis with a 40' aerial device, fiberglass line body, and this vehicle will be used in traffic signal construction and maintenance operations. Bidders must submit their bid on a unit that meets or exceeds these specifications.

General Requirements

Units offered under this advertisement shall be new standard production models of the latest design in current production. Units offered shall be equipment that is established, reliable and in successful operation. Units of experimental or unproven design are not acceptable. All components requiring lubrication or oil shall be provided with the proper type and amount before delivery.

Bids will be considered only from vendors who offer equipment that is manufactured by companies that have been regularly engaged in the manufacture of equipment of the type, class and size specified herein for a period of not less than five (5) years. Bidders must be a manufacturer authorized sales and service facility for the product offered. The bidder shall include in the bid package a list of at least ten (10) users of the equipment type offered in the package, so that department personnel can check the references.

The bidder must also submit with their bid, the latest printed manufacturer's specifications and advertising literature on the units they propose to furnish.

The origin and availability of service and parts for the major components must be stated. Qualified service and factory replacement parts must be readily available. If factory replacement parts are not available locally, the vendor must provide a letter indicating parts orders will be shipped the same day as ordered and can be shipped UPS or Federal Express per the Macomb County Department of Roads Stockroom's request. If local service is not available, the vendor must provide mobile service or techline assistance.

Bidders are expected to quote price and delivery of equipment they propose to furnish, giving careful consideration to the specification. Any deviations from these specifications shall be submitted with the bid in writing, with full detail of each variation and with reference made to each item to which the variation applies. If these variations are not submitted with the bid, the entire bid will be considered non-responsive.

It is understood, bidders must consider "floor plan" costs when providing a total delivered bid price. The Macomb County Department of Roads will consider proposals calling for payment of the cab and chassis within "x" days following delivery to the bodybuilder; - thus reducing the dealer's "floor plan" costs, and subsequently lowering the Macomb County Department of Roads cost per unit. The dealer must provide appropriate documentation reflecting that all warranties shall start when the completed vehicle is delivered and put in-service with the Macomb County Department of Roads.

Delivery time, past performance of the bidder and/or the equipment offered, as well as price, will be considered major factors in determining the successful bidder.

The manufacturer's warranty and/or component warranties must be stated. Additionally, an explanation and price quote for any extended warranty programs available shall be provided for the consideration of the Macomb County Department of Roads. Unsatisfactory or inadequate warranty provisions shall, in themselves, be justification for the denial of the award of this bid by the Macomb County Department of Roads.

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
ENGINE AND ENGINE EQUIPMENT			
Engine: The engine shall be a liquid-cooled 6-cylinder, 4-cycle diesel engine, rated at 270 HP @ 2200 rpm, and providing 860 ft-lbs of torque @ 2200 rpm. Maxxforce DT 2010 emissions. Non SCR Technology State engine make: _____, model: _____, and HP/Torque rating: _____			
Bidders may provide optional pricing for equivalent engines, hybrid engine, and information on possible grants for customer consideration. In addition to optional pricing, engine warranty information should also be provided.			
The engine manufacturer shall provide, and install the appropriate engine diagnostic software, or updates on the MCDR Mechanic Service Center laptop computer. All necessary manuals, cables, adapters and training will be provided enabling MCDR technicians to properly hookup and troubleshoot engine related problems.			
Engine Warning Device: Audible/visual alarm/shutdown for low oil pressure, overheating, low water level with automatic override. DPF regen switch.			
Air Induction System: Donaldson filter with under hood air intake.			
Radiator Coolant: To be long life environmental -34°F.			
Coolant Hoses: Silicone type			
Radiator Conditioner: If required per engine OEM and type of coolant used; the appropriate Fleetguard spin-on filter/conditioner shall be used			
Starting Motor: 12-Volt, with overcrank protection.			
Alternator: Delco-Remy 22-si 12 volt			
Batteries: two (2), Maintenance Free 12V-650CCA (ea.) batteries shall be provided, for a total of 1300 CCA.			
Exhaust System: Shall consist of a single horizontally mounted aluminized steel muffler and tailpipe. The tailpipe shall exhaust on <u>street</u> side. The exhaust system shall not interfere with PTO, hydraulic pump, aerial device or body installation.			
Primary Fuel Filter: A heated fuel filter/water separator w/sight glass shall be provided.			
The Oil Pan shall have added anti-corrosion protection.			
Oil Filter-Bypass: A Fleetguard engine mounted spin-on type filter shall be provided.			
Oil Check and Fill: Shall be an engine mounted, easy access side fill tube.			
Air Compressor: Shall be rated at 13.2 CFM minimum.			
A Schrader-type inflation valve shall be mounted on the Air Compressor Governor, so as to provide a means to "charge" the air system in the event of a "down" condition.			
Engine Block Heater: A Phillips 1500 Watt, 120 Volt shall be provided.			
TRANSMISSION AND TRANSMISSION EQUIPMENT			
Transmission: Allison MD 3500P six (6) speed electronic, with 860 lb.ft. torque capacity.			
Transmission Warranty: Shall be the Allison MD/HD five (5) year ETC warranty.			
Transmission Lubricant: Shall be TranSynd™ synthetic.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
Note: If transmission is shipped with petroleum-based lubricant for break-in period. Bidders should consider their cost to bring vehicle back in, after approximately 5,000 miles to have lubricant replaced with TranSynd™ synthetic type.			
Trans Cooler: Allison approved transmission cooler shall be provided.			
Trans Controls: An Allison pushbutton MD/HD control, dash mounted, shall be provided.			
Driveline: Shall be a Spicer "Lifeline" torque-matched sealed unit.			
FRONT AXLE			
Front Axle: 10,000 lbs. capacity. Meritor MFS-10-143A wide track			
Front Suspension: Shall be 10,000 lb. a minimum capacity rated multi-leaf type.			
Steering: Power steering.			
Front Brakes: Shall be 16.5 x 5" Meritor (Rockwell) Q-Plus S-Cam Type.			
Front Slack Adjusters: Haldex automatic slack adjusters with stainless steel pins			
Front Dust Shields: Shall be provided			
Front Shock Absorbers: Double acting single, heavy duty.			
Oil Seal Cap: Shall be the visible cap type.			
Oil Seals (front): National Brand			
Front Hub Lubricant: Shall be synthetic type lubricant.			
REAR AXLE AND REAR AXLE EQUIPMENT			
Rear Axle: 17,500 lb. capacity with driver controlled full locking differential, with an appropriate gear ratio that ensures a minimum fully loaded road speed of fifty-five (55) miles per hour and a top geared road speed of sixty (65) miles per hour while providing compatibility with manufacturer's recommendations for engine, transmission and other drive train components.			
Rear Suspension: Shall be 17,500 lb. minimum capacity rated, multi-leaf spring with helper. Dana Spicer 17060d single reduction, 190 wheel ends, driver controlled locking differential gear ratio 6.17			
Rear Axle Lubricant: Shall be the synthetic type.			
Oil Seals (rear): National Brand			
Rear Brakes: Shall be the 16.5 X 7" Meritor (Rockwell) Q-plus S-Cam for single axle type.			
Parking Brake Chambers: Two (2) spring brake chambers shall be provided.			
Rear Slack Adjusters: Haldex automatic slack adjusters with stainless steel pins			
Rear Dust Shields: Shall be provided.			
Brake Control System: Shall be the Bendix ABS system with full traction control.			
CHASSIS AND CHASSIS EQUIPMENT			
Wheelbase: Wheelbase and chassis to match the bodybuilder's requirements for installation of the specified aerial device and line body. (Nominally 152"WB) and (84" CA)			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
<p>Frame Rails High strength low alloy steel 80,000 psi yield 10.250 x 3.092 x 0.375 (260.4mm x 78.5mm x 9.5 mm) 427" (10846mm) maximum OAL Specify frame rail (single, reinforced): _____,</p> <p>Dimensions: _____, Yield Strength (110K/120K psi heat treated): _____, SM: _____, RBM: _____</p>			
<p>If reinforcement of frame is necessary to achieve above minimum requirements for section modulus and effective RBM, said reinforcement must encompass the full length of the frame rails.</p>			
<p>Rear Frame Overhang: To match bodybuilder's specific requirements.</p>			
<p>Frame Treatment, Rear: Shall be a straight cut-off.</p>			
<p>Bumper: The bumper shall be of heavy-duty steel channel-design, with flared back ends.</p>			
<p>Tow Hooks: Two (2) hooks or eyes will be provided, one (1) mounted on each frame rail adjacent to the front bumper.</p>			
<p>Air Dryer: Meritor Wabco system saver 1200 w/heater.</p>			
<p>Air Tank Drain Valve: Shall be the automatic draining type w/o heater.</p>			
<p>Trailer Connections: Electrical supply to the end of frame (EOF) shall be provided. No EOF air supply needed.</p>			
<p>Fuel Lines: Fuel lines shall be SAE-J844 nylon tubing.</p>			
<p>Back-up Alarm: Shall be electric.</p>			
<p>Battery Box: The battery box with lid shall be mounted on the side providing the shortest distance to the starter motor, (3) battery (minimum) capacity, and provide a minimum of 24" ground clearance.</p>			
<p>Battery Disconnect: A two (2) post battery disconnect shall be provided and mounded at the rear of the battery box in a safe and secure manner. A guard shall be provided so as to prevent accidental disconnection.</p>			
<p>Chassis Electrical Access: The chassis manufacturer shall provide appropriate bodybuilder electrical access for all functions (including a combination wire for turn signals/brake lights) inside the cab, per the bodybuilder's requirements. Remote power module inside cab behind drivers seat 6 outputs and 6 inputs. And PTO accommodation for 3 latched rockers switches 1 PTO switch, 2 generic switches to control 3 30 amp relays with programmable interlocks for body builder hook up in engine compartment. And remote start/stop for body builder</p>			
<p>CAB AND EXTERIOR ITEMS</p>			
<p>The cab shall be of all-welded, non-riveted construction.</p>			
<p>The cab shall be the largest interior room conventional day cab as is available from each manufacturer.</p>			
<p>Hood: The hood shall be of the fiberglass tilt-type with integral front fenders and fender extensions.</p>			
<p>Grill: The grill shall be integral with the hood. A bug screen and vinyl winter front shall be included.</p>			
<p>Air Horns: Single air horn, dual-trumpet, chromed and roof mounted with shields.</p>			
<p>Electric Horn: An electric, standard horn shall be provided.</p>			
<p>Mirrors: Shall be West Coast stainless steel heated-type with bright arms.</p>			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
Mirror Arms: Retractable arms chrome/stainless steel.			
Convex Mirrors: Stainless steel clamp-on style convex mirrors shall be provided.			
Tinted Glass: All windows, rear cab window.			
Cab Access: Two self-cleaning steps per side, in conjunction with RH/LH step tanks.			
Cab to have entry assist handles RH/LH.			
CAB INTERIOR ITEMS			
Cab Interior Level: The manufacturer's better interior trim level shall be provided. The color shall be Gray or Tan. The door interior panels shall have integral armrests.			
Floor Covering: The cab floor covering shall be the mat type with foam backing.			
Glove Box: A door pocket, left side mounted shall be provided.			
Cab Climate Control: Air Conditioner integral with heater/defroster rated at 40,000 BTU.			
Seat: In so far as this vehicle is normally sent out with a three-man crew, a bench-type seat, or seating for three shall be required.			
Seat Inserts/Coverings: All seat inserts and coverings shall be high-durability Corduroy (cloth) material.			
Seat Belts: Seat belts shall be provided for all passengers.			
Steering Wheel: Eighteen (18") inch sport wheel.			
Steering Column: Adjustable tilt and telescopic.			
Gauges: Gauge package with black instrument panel to include MPH speedometer and odometer, electric; electric tachometer; electric hour meter, dash mounted; mechanical oil pressure gauge; electric water temperature; electric fuel gauge, dash mounted; dual air pressure gauge; low air warning, audible and visual; voltmeter.			
Chassis Electrical Access: Inside the cab, as listed previously in the chassis specifications.			
Additional Miscellaneous Items:; interior sun visors, color-keyed left and right; graduated air restriction indicator with dash-mounted warning light; transmission temperature warning light and buzzer.			
LIGHTING AND ELECTRICAL PROVISIONS			
This vehicle will often be operating in the middle of an intersection; as such a greater use of safety lighting will be required. In efforts to minimize the additional load these lights will place on the vehicle electrical system, the manufacturer and bodybuilder shall use LED lights whenever possible.			
Circuit Protection: Shall be semi auto-reset Type II circuit breakers, where available			
Headlights: Shall be the halogen type w/daytime running lights.			
Marker Lights: Five (5) amber LED lights shall be provided.			
Parking Lights: Shall be integral with front turn signals.			
Stop and Tail Lights: Shall be dual with integral backup lights.			
Turn Signal Switch: Shall be self-canceling with transistorized flasher.			
Beacon: Shall be covered in bodybuilder portion of spec.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
RADIO AND MISCELLANEOUS ITEMS			
Radio: Shall be AM/FM Stereo			
Radio Speakers: Two (2) dual-cone speaker units shall be provided.			
Fleet Radio Provisions: Power and ground connections, and a dash-mounted hold down plate for CB or Fleet Radio shall be provided.			
Windshield Wipers: Shall be of the single electric motor, intermittent type.			
Fire Suppression Equipment: A five (5) lb. Dry-type ABC-rated rechargeable fire extinguisher mounted inside the cab shall be provided.			
Safety Equipment: A kit containing three (3) triangular reflectors shall be mounted inside the cab.			
Keys/Door Locks: Door and ignition keyed alike.			
Key Type: Each unit ordered should be keyed uniquely.			
Key Quantity: Four (4) sets of keys shall be provided per unit.			
CAB AND CHASSIS PAINT			
Cab Paint: A basecoat/clearcoat paint system, which results in a high luster premium finish, shall be used. The color shall be Omaha/Tangier Orange. Color code: _____			
Chassis/Bumper/Hub Color: The chassis, front bumper and wheel hubs shall be painted standard black.			
Disc Wheel/Rim Color: The disc wheels/rims shall be painted medium gray.			
FRONT TIRES AND WHEELS			
Steering Tires: The steering tires shall be 11R22.5 H, 16-ply Michelin XZA-2 tubeless radials.			
Front Rims/Wheels: The front rims/wheels shall be 22.5 X 8.25 hub-piloted Accuride steel discs with a 285mm bolt circle.			
Front Hubs: The front hubs shall be steel, hub-piloted with a bolt circle of 285.75mm.			
Front Brake Drums: The front drums shall be cast iron.			
Spare Front Wheel: A mounted spare wheel/tire of the size and specifications listed above shall be provided for each unit ordered.			
REAR TIRES AND WHEELS			
Rear Tires: The rear tires shall be 11R22.5 H, 16-ply Michelin XDE-2 tubeless radials. Load range H			
All lugs will be disc lock wheel lugs on all wheels. PIN NMF-2090-M-GEO. No exceptions.			
Rear Rims/Wheels: The rear rims/wheels shall be 22.5 X 8.25 hub-piloted Accuride steel disc with a 285mm bolt circle.			
Rear Hubs: The rear hubs shall be steel, hub-piloted with a bolt circle of 285.75mm.			
Rear Brake Drums: The rear drums shall be cast-iron.			
AERIAL DEVICE			
40' Aerial Device with 24" x 30" x 42" bucket and material handler, Versalift VST-40 -I or approved equal. Specify Make: _____, Model: _____			
Shall be a telescopic, insulated unit with full hydraulic continuous rotation through 360°.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
Hydraulically driven worm and spur gear acting on a shear ball rotation bearing accomplish rotation.			
Minimum Floor Height (ground to bottom of bucket): 40'			
Working Height: 45'			
Minimum Side Reach (from center of rotation): 30'			
Stowed Travel Height: Approximately 11'2" when based on a 36" frame height.			
The stowed height shall not exceed 12'6", and shall be clearly marked in the truck cab and on each side of the boom.			
Weight of Lift: Approximately 6,300 lbs.			
Non-lube bearings are to be used at most points of motion. The rotation bearing and extension chain require periodic lubrication.			
Critical bolts are torque seal marked to provide a quick means of detecting any loosening upon inspection.			
Stabilization of the unit shall be accomplished with a set of "A" frame hydraulic outriggers attached to the rear of the aerial pedestal with the control located at the curbside and street side rear of the utility body, as directed.			
PEDESTAL			
The pedestal is tubular with a reinforced mounting plate. The top plate of the pedestal is 1-1/4" thick and machined flat to support the rotation bearing.			
A pedestal shall be provided to insure adequate clearance between the chassis cab and the aerial device, throughout the aerial device's full range of motion.			
The pedestal shall be mounted behind truck cab and the work bucket stowed toward the rear.			
TURRET			
The turret wings are designed for strength and rigidity. The turret plate is machined to provide a flat surface to support the rotation bearing.			
The bearing cover is continuously welded to seal out moisture and prevent foreign materials from obstructing the turret rotation.			
CONTROLS/VALVES			
Controls shall be adaptable to the truck's electronics. There shall be no cables or portions of the extension cylinder inside the fiberglass boom section to compromise the dielectric integrity of the fiberglass boom.			
The boom movements are to be controlled by full-pressure, four-way spool valve section both at the bucket level and at the pedestal level.			
Upper and lower boom control valves are to be spring-return-to-neutral type in accordance with ANSI A92.2.			
Upper and lower control valves shall be connected hydraulically and shall provide flow-through circuitry to maintain uniform hydraulic oil temperature under all conditions.			
The upper controls shall provide 4 Axis, right hand, single stick control of all boom functions, including 180 degree platform rotation.			
Upper control override functions shall be provided, by means of lower controls, at the pedestal. The override system shall provide a detented hydraulic control valve to prevent accidental movement from the valves standard position. It shall also permit the controls at the bucket to be overridden in emergencies. The lower controls shall be accessible at all times and shall be mounted at the lower part of the boom turret.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
The aerial unit shall be equipped with a truck engine start/stop control. An air cylinder at the upper controls and a toggle switch at the pedestal are used to energize this system.			
A master control switch energizes the upper and lower control circuits, including engine start/stop and optional two-speed throttle control.			
PLATFORM			
Platform to be a 24" X 30" X 42" Class "C" rated two man closed fiberglass bucket, with a rated capacity of 600 lbs w/o material handler and 500 lbs with material handler.			
A 1/4-inch polyethylene bucket liner with interior steps shall be provided			
The solid, no-access bucket shall be provided with side mounting step to facilitate easy entry and exit, and shall include a vinyl protective cover. The platform mounting shall be provided with a safety belt liner, and scuff pad with step loop anchor. When stowed the steps shall face the front of the truck.			
The bucket shall be automatically and hydraulically leveled with master and slave cylinders, and shall stow within the plane of the rear bumper.			
The platform shall rotate hydraulically 180 degrees. The rotation device shall be controlled by a lever-operated, spring-return-to-neutral hydraulic valve mounted on the bucket and accessible only to the operator.			
BOOM ASSEMBLY			
Boom Articulation: Upper Boom -25 degrees to +85 degrees, Lower Boom 0 degrees to +90 degrees.			
Lower boom end (knuckle) is not more than 89" from centerline of rotation, to limit exposure into traffic.			
Insulation Gap: Upper Boom 38" with inner boom fully retracted, 179" fully extended. Lower Boom 24" insulation gap			
The outer/inner boom assembly is tested and certified for electrical work at 46KV and below in accordance with ANSI A92.2-1990 requirements.			
Boom elevation to be accomplished by double acting hydraulic cylinder with integral holding valves; the inner/outer boom assembly is offset to provide easy access to the platform.			
Boom Storage: Deck-mounted boom support cradle with a ratchet type tie-down strap and a cushioning device shall be included.			
Cylinders: Upper and lower cylinders are threaded head cap design, and are equipped with integral holding valves to prevent creep down and to lock the boom in position in the event of a hose failure.			
MATERIAL HANDLING WINCH, JIB			
The bucket, winch, and jib assembly shall be mounted to a fiberglass-covered frame attached to the inner boom tip.			
The bucket mounting-frame shall maintain the bucket, winch, and jib assembly in a proper work position by use of hydraulic master and slave cylinders.			
The material-handling winch shall use a hydraulically driven self-locking worm gear to raise and lower loads.			
The jib assembly shall be equipped with sheave head mounted winch line load indicator.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
The jib assembly must move vertically by means of a hydraulic cylinder. Movement of the winch line or jib assembly is to be controlled by separate lever-operated, spring-return-to-neutral hydraulic valves. Weight capacity of the material handler to be minimum 500 lbs.			
HYDRAULIC TOOL CIRCUIT			
The aerial unit shall be equipped with hydraulic tool circuit outlets at the platform. Two sets of hydraulic tool outlets shall be located at the basket and shall be supplied by a 3/8" I.D. pressure line and equipped with dual 3/8" I.D. return lines. The upper tool circuit outlets shall be equipped with HTMA type quick disconnects; the upper tool circuit hoses shall be contained within a cat-track enclosed in the boom.			
The tool circuit provides 6 gpm at 2250 psi			
OPTIONS (not previously specified)			
An automatic two-speed throttle shall be activated by the on-handle safety trigger with provisions at the platform, at the pedestal base and in the cab to allow the operator to turn off the two-speed throttle when operating in and around confined areas.			
A 12-Vdc emergency hydraulic system shall be incorporated to allow for operation of the aerial device and the outriggers in the event of a main hydraulic system failure.			
Control for activating the emergency power unit shall be located at both the upper and lower control stations.			
Safety Equipment: Two harnesses and two 4-foot lanyards shall be provided.			
HYDRAULICS			
Hydraulic power shall be supplied via a direct transmission mounted Chelsea PTO/ hydraulic pump combination of suitable size and design for proper aerial device and outrigger operation.			
The open center hydraulic system has a rated pressure of 2500 psi, and operates a 2250 psi at 6 gpm.			
The transmission mounted power take off shall include a "hot shift" engage/disengage mechanism, pressure lubrication, over speed protection and a light in the cab to indicate PTO engagement.			
Hydraulic Reservoir: Shall have a 20-gallon (minimum) capacity, a sight gauge and a filler neck that is easily accessible.			
The system shall be filled with hydraulic oil that meets or exceeds Mil. Spec. #5606			
Filtration: The hydraulic system shall include a 100-mesh strainer and a 10-micron return line filter. One replacement filter shall be included at time of delivery.			
Suction and return lines shall have full-flow ball-valve manual shut off valves to allow for change of filters or servicing of the hydraulic system without draining the reservoir			
A hydraulic system relief valve set at the recommended working pressure shall be required.			
Proper plumbing practices shall be exercised to eliminate restrictions and excessive backpressure.			
PAINT			
The aerial device shall be painted Orange to match the cab of the truck.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
UTILITY BODY			
Fiber Body model, or approved equal (Aluminum) State Make: _____, State Model: _____.			
Length: Approximately 132"			
Height: Approximately 48-1/2"			
Width: Approximately 94"			
Clear Floor Width: Approximately 58"			
Body: The entire body shall be of molded fiberglass construction forming a single unit.			
Sub-frame: To be of structural steel construction, primed and painted.			
Floor Plate: 3/16" tread-plate			
Side-pack construction to be molded core-mat and PVC structurally reinforced fiberglass.			
Wheel well panels to be removable with radius corner for added strength and durability.			
Compartment backs and end panels shall be approximately 3/8" thick, constructed with 4-ml. core-mat.			
Compartment faces and tops shall be approximately 3/4" thick, constructed using 3/8" PVC structural foam core.			
All compartment doors shall be keyed alike, have automotive gasket seals, and shall be equipped with vinyl coated aircraft cable restraints.			
All fasteners, latches and hinges shall be stainless steel.			
Aluminum tread plate rock guards on front of body			
Aluminum tread plate bulkhead			
Aluminum tread plate material shall be installed on top surface of side compartments.			
Extruded aluminum drip rails shall be installed over the compartment doors.			
Wheel chock storage compartments shall be incorporated into the wheel well areas of the body, and two (2) pair of lightweight material chock blocks shall be included.			
Compartments, Front to Back, <u>Street-side</u> approx. dimensions: #1. 20-3/4"w x 40-1/4"h x 18"d – (3) adjustable divider shelves #2. 20-3/4"w x 40-1/4"h x 18"d – (4) adjustable divider shelves #3. 52-1/8"w x 15-3/4"h x 18"d – Slide out bin/drawer for nuts and bolts w/ approx 8 compartments, and upper level shelf weight capacity 250 lbs. #4. 15-3/4"w x 40-1/4"h x 18"d – with 1 shelf and also rear facing door at top to provide storage of minimum 10 ' lengths of conduit and other long items. Rear door to be approx 8" high and 14" wide.			
Compartments, Front to Back, <u>Curb-side</u> approx. dimensions: #1. 20-3/4"w x 40-1/4"h x 18"d – (3) adjustable divider shelves <ul style="list-style-type: none"> Between compartment #2 and #3 on the curbside, there shall be an access opening for access up into the body area. This access opening shall have 3/16" tread plate side panels and two grip strut steps. An access assist handle shall be mounted on the side of compartment #2. #2. 52-1/8"w x 15-3/4"h x 18"d – Slide out bin/drawer for nuts and bolts w/approx 8 compartments, and upper level shelf. Weight capacity 250 lbs. #3. 15-3/4"w x 40-1/4"h x 18"d – (6) material hooks 3-3-0			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
Lighting Provisions: Dome lighting shall be provided for inside the individual compartments. Suitable openings shall be provided in the line body allow for mounting of SST lights, backup lights and 4" round strobe lights			
Tail Shelf: A heavy-duty tail-shelf (floor extension) shall extend approximately 25" from the rear of the line body, including the side boxes.			
One (1) 8" heavy duty bench vise with integral pipe jaws shall be mounted at the rear street side corner of the tail shelf. Wilton 748A or approved equal			
Rear Bumper: A 10" heavy-duty "grip strut" bumper with hitch recess, and safety chain "D" rings shall be located at an appropriate level below the tail shelf so as to provide a step for access to the rear of the body.			
One (1) grab handle shall be installed at curbside rear of truck to facilitate rear access via rear bumper (step) up to tail shelf and rear body area.			
A traffic cone storage post shall be installed on the rear bumper just left (street side) of center.			
Trailer Hitch: Buyers PH-15, 15-ton pintle hook or approved equal shall be mounted to the hitch recess with grade 8 bolts and Stover nuts, and located 21" from level ground to rest point on the pintle hook.			
Suitable mud-flaps for rear wheels shall be installed			
Paint: The body, including the, tail shelf and rear bumper shall be painted to match the cab, with Gelcoat to be applied over the entire fiberglass body.			
LIGHTING/ELECTRICAL			
Trailer Receptacle: Corrosion resistant diecast metal 7-pin round pin receptacle.			
An electrical trailer brake controller shall be installed in a suitable location in the vehicle cab.			
License plate bracket with light			
Electrical back-up alarm			
One (1) Unity #225 Spotlight, mounted through driver side windshield pillar post			
Beacon: One (1) Star Model #9522HS light bar with take downs on cab roof			
Two (2) Star 9200SQ mini bars located top rear of side boxes, street and curbside.			
Two (2) flood lamps mounted on each side of pedestal for lighting of bed floor.			
Two (2) Star 3904R (red) 4" strobe heads flush mounted into rear facing surface of side boxes.			
Two (2) Star 3950 (amber) rectangular strobe heads recessed and mounted into front grill.			
One (1) Star RP330Q remote power pack (70-watt, quad-flash, and 4-outlet) to power the rear facing 4" round strobes and the grille mounted rectangular strobes.			
Four (4) Star 3810 cables, for connecting the remote strobe heads			
Stop/Turn/Tail Lights: Grote 10-diode series '40' LED lights			
Back-up Lights: Truck-Lite "white" LED lights			
Running and Marker Lights: LED lights			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
One (1) Star 3866PE enclosed switch panel; located below dash console to provide lighted individual rocker type switches with built in indicator lights to control the 12 volt functions described herein: A master control switch to activate and deactivate all switches on the console, pump on, cab light bar, rear body-mounted mini-bars, front-grille and rear strobes and bed floods. All functions protected with thermal reset circuit breakers of the appropriate amperage.			
The control panel assembly shall obtain power directly from truck batteries via an 8-gage wire from an 80-amp/100% duty cycle solenoid (Cole Hersey #24106), protected by a manual reset 60-amp breaker. The ignition switch energizes the solenoid.			
All wiring is to be color-coded and a minimum of 16-gage. All wiring from the control panel is to be continuous once it leaves the sealed environment of the cab (no splicing). Connections of components to be made with Weather Pak type connectors, sealed so as to prevent corrosive capillary action. All wiring shall be in a sealed loom and securely fastened. Wires running through body panels or over rough edges shall be protected with grommets.			
OPTIONS			
Provide individual option pricing along with advertising literature on the following items: Miscellaneous Tools – <ul style="list-style-type: none"> • Fairmont-Textrol. Model H8508-3U • Moderate Torque ½ impact wrench with flow control and 49314 HD SQ adaptor with hoses and fitting necessary for use Signs – <ul style="list-style-type: none"> • Four (4) MDI prismatic florescent orange 48” roll up (signal work ahead) signs with Dura-Latch System. System-3 bases and cross bracing for two (2) flags shall be provided to support roll up signs. 			
The Bodybuilder shall add springs as necessary to level/correct frame height after all necessary equipment is installed. The use of spacer blocks to achieve these adjustments is not allowed.			
PICTURES/LITERATURE			
A picture brochure of unit along with the manufacturer’s specifications shall be submitted with bid. Picture brochures and manufacturer’s specification for all Body Company supplied equipment shall be supplied along with their equipment bid.			
TRAINING			
In additions to providing one (1) set of operating and service videos. The successful equipment vendor shall conduct at least one-half day of training in the use of the upper structure equipment, with special emphasis placed on emergency hydraulic circuits for lowering disabled boom and outriggers.			
SAFETY			
The completed work truck shall meet all applicable State and Federal vehicle codes and current MIOSHA, ANSI standards and regulations.			

COMPLIES WITH SPECIFICATIONS?	YES	NO	EXPLAIN DEVIATIONS
ADDITIONAL ITEMS One (1) each of the following service, repair and parts manuals shall be provided for each unit ordered, plus one (1) additional parts manual for the Macomb County Department of Roads stockroom: a) Engine b) Allison MD3500P Transmission c) Truck chassis and associated components d) Body and associated equipment, aerial device and material handler.			
Note: CD-ROM disc versions of the above manuals may be substituted in lieu of hard copy (paper) manuals. Failure to supply any of the above manuals at time of delivery may result in the penalty clause of Warranty Documentation Provisions being invoked.			
Upon receiving the bid award, the successful bidder shall contact the MCDR Equipment Manager (586)790-7814 to schedule a pre-build meeting. A paper pilot review of the entire unit shall be conducted prior to the build of the chassis and shall include at least one (1) representative from each of the following: a) Chassis manufacturer's factory engineer b) Chassis manufacturer's dealer representative c) Bodybuilder representative and associates of their choice d) Macomb County Department of Roads This review shall be held at a mutually agreeable location, with good speakerphone capabilities.			
Engine Warranty: The engine shall have the best available warranty as is offered by the manufacturer for municipal use. A copy of the engine manufacturer's warranty certificate shall be included as part of the bid package.			
Allison Transmission Warranty: The transmission shall have the Allison World MD/HD five (5) year ETC warranty.			
Truck Chassis Warranty: A copy of the truck manufacturer's warranty certificate shall be included as part of the bid package as applicable to the chassis product being bid. The bidder upon request shall provide further clarification of warranty provisions. (3) Year warranty			
Aerial Unit Warranty: Minimum 2 years. 3 years on all Hydraulic hoses.			
Body Warranty: The following items to be covered by a minimum five (5) year limited warranty. a) No rust-thru guarantee b) Continuous door hinge c) Latches and lock cylinder d) Adjustable divider shelves			
WARRANTY DOCUMENTATION PROVISIONS			
General Terms and Conditions: Warranty certificates or letters on all applicable and requested warranty items shall be provided to the end user upon delivery of the first chassis unit. All warranties shall start from the in-service date with the Macomb County Department of Roads. Penalty Clause: Failure to provide any of the above documentation at the time of delivery shall be grounds for withholding three thousand (\$3,000.00) dollars of the monies due for payment of the unit, until such time as the requested documentation is provided.			

